

Ms. Linda Scalet  
Othy, Inc.  
486 West 350 North  
Warsaw, Indiana 46580-7721

Dear Ms. Scalet:

Re: Exempt Operation Status,  
085-15794-00059

The application from Othy, Inc., located at 486 West 350 North, Warsaw, Indiana, received on June 21, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following medical instrument fabrication source, is classified as exempt from air pollution permit requirements:

- (a) Metal fabrication with a maximum rate of 200 pounds per hour, which consists:
  - (1) Forty-two (42) polishing stations, each is controlled by a dedicated dust collector, identified as PJC-01 through PJC-42;
  - (2) Eight (8) grinders;
  - (3) Thirty-two (32) CNC lathes;
  - (4) Forty-seven (47) milling machines;
  - (5) EDM;
  - (6) Cutting and Grinding instruments;
  - (7) One (1) metal inert gas (MIG) welding station with a maximum hourly consumption of 0.05 pound of weld wire, controlled by a Torit Dust Collector;
  - (8) Four (4) tungsten inert gas (TIG) stations and two (2) oxyacetylene stations; and
  - (9) Six (6) TIG stations with a maximum metal consumption of 2.43 pounds per hour per station.
- (b) One (1) natural gas-fired heater, identified as H-1 with a maximum heat input capacity of 0.8 million British thermal units per hour (mmBtu/hr);
- (c) One (1) natural gas-fired heater, identified as H-2 with a maximum heat input capacity of 0.17 mmBtu/hr;
- (d) Two (2) natural gas-fired heaters, identified as H-3 and H-4 each with a maximum heat input capacity of 0.10 mmBtu/hr;
- (e) One (1) natural gas-fired heater, identified as H-5 with a maximum heat input capacity of 0.08 mmBtu/hr;
- (f) One (1) natural gas-fired heater, identified as H-6 with a maximum heat input capacity of 0.15 mmBtu/hr;
- (g) One (1) natural gas-fired pulse heater, identified as H-7 with a maximum heat input capacity of 0.154 mmBtu/hr;
- (h) One (1) natural gas-fired heater, identified as HVAC#1 with a maximum heat input capacity of 1.2 mmBtu/hr;
- (i) One (1) natural gas-fired heater, identified as HVAC#2 with a maximum heat input capacity of 0.6 mmBtu/hr;
- (j) One (1) natural gas-fired heater, identified as HVAC#3 with a maximum heat input capacity of 0.8 mmBtu/hr;
- (k) One (1) natural gas-fired heater, identified as HVAC#4 with a maximum heat input capacity of 1.5 mmBtu/hr;
- (l) One (1) natural gas-fired heater, identified as HVAC#5 with a maximum heat input capacity of 0.5 mmBtu/hr;
- (m) One (1) natural gas-fired heater, identified as HVAC#6 with a maximum heat input

- capacity of 0.6 mmBtu/hr;
- (n) One (1) natural gas-fired heater, identified as HVAC#7 with a maximum heat input capacity of 0.9 mmBtu/hr;
- (o) Two (2) natural gas-fired heater, identified as HVAC#8 and HVAC#9 each with a maximum heat input capacity of 0.188 mmBtu/hr;
- (p) Two (2) natural gas-fired heater, identified as HVAC#10 and HVAC#11 each with a maximum heat input capacity of 0.388 mmBtu/hr; and
- (q) One (1) natural gas-fired heater, identified as ID48 with a maximum heat input capacity of 0.049 mmBtu/hr.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Any change or modification which may increase the Particulate Matter (PM) or Particulate Matter Less Than Ten Microns (PM10) emissions to 5 tons per year or more from the equipment covered in this exemption will require a registration and must be approved by the Office of Air Quality (OAQ) before such change may occur.

This exemption is being re-issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

APD

cc: File - Kosciusko County  
Kosciusko County Health Department  
Air Compliance -Doyle Houser  
Northern Regional Office  
Permit Tracking  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for an Exemption

#### Source Background and Description

Source Name: Othy, Inc.  
Source Location: 486 West 350 North, Warsaw, Indiana 46580-7721  
County: Kosciusko  
SIC Code: 3842  
Operation Permit No.: 085-15794-00059  
Permit Reviewer: Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Othy, Inc. relating to the re-permitting of the following medical instrument fabrication source:

- (a) Metal fabrication with a maximum rate of 200 pounds per hour, which consists:
  - (1) Forty-two (42) polishing stations, each is controlled by a dedicated dust collector, identified as PJC-01 through PJC- 42;
  - (2) Eight (8) grinders;
  - (3) Thirty-two (32) CNC lathes;
  - (4) Forty-seven (47) milling machines;
  - (5) EDM;
  - (6) Cutting and Grinding instruments;
  - (7) One (1) metal inert gas (MIG) welding station with a maximum hourly consumption of 0.05 pound of weld wire, controlled by a Torit Dust Collector;
  - (8) Four (4) tungsten inert gas (TIG) stations and two (2) oxyacetylene stations; and
  - (9) Six (6) TIG stations with a maximum metal consumption of 2.43 pounds per hour per station.
- (b) One (1) natural gas-fired heater, identified as H-1 with a maximum heat input capacity of 0.8 million British thermal units per hour (mmBtu/hr);
- (c) One (1) natural gas-fired heater, identified as H-2 with a maximum heat input capacity of 0.17 mmBtu/hr;
- (d) Two (2) natural gas-fired heaters, identified as H-3 and H-4 each with a maximum heat input capacity of 0.10 mmBtu/hr;
- (e) One (1) natural gas-fired heater, identified as H-5 with a maximum heat input capacity of 0.08 mmBtu/hr;
- (f) One (1) natural gas-fired heater, identified as H-6 with a maximum heat input capacity of 0.15 mmBtu/hr;
- (g) One (1) natural gas-fired pulse heater, identified as H-7 with a maximum heat input capacity of 0.154 mmBtu/hr;
- (h) One (1) natural gas-fired heater, identified as HVAC#1 with a maximum heat input capacity of 1.2 mmBtu/hr;
- (i) One (1) natural gas-fired heater, identified as HVAC#2 with a maximum heat input capacity of 0.6 mmBtu/hr;
- (j) One (1) natural gas-fired heater, identified as HVAC#3 with a maximum heat input capacity of 0.8 mmBtu/hr;
- (k) One (1) natural gas-fired heater, identified as HVAC#4 with a maximum heat input

- capacity of 1.5 mmBtu/hr;
- (l) One (1) natural gas-fired heater, identified as HVAC#5 with a maximum heat input capacity of 0.5 mmBtu/hr;
  - (m) One (1) natural gas-fired heater, identified as HVAC#6 with a maximum heat input capacity of 0.6 mmBtu/hr;
  - (n) One (1) natural gas-fired heater, identified as HVAC#7 with a maximum heat input capacity of 0.9 mmBtu/hr;
  - (o) Two (2) natural gas-fired heater, identified as HVAC#8 and HVAC#9 each with a maximum heat input capacity of 0.188 mmBtu/hr;
  - (p) Two (2) natural gas-fired heater, identified as HVAC#10 and HVAC#11 each with a maximum heat input capacity of 0.388 mmBtu/hr; and
  - (q) One (1) natural gas-fired heater, identified as ID48 with a maximum heat input capacity of 0.049 mmBtu/hr.

### Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Exemption 085-5399-00059, issued on September 25, 1996

### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on June 21, 2002, with additional information received on August 1, 2002.

### Emission Calculations

- (a) Various Heaters Natural Gas Combustion Emissions: See Page 1 of 1 TSD Appendix A for detailed calculation.
- (b) Welding Emissions:  
The following was taken from Exemption 085-5399-00059, issued on September 25, 1996:

Dust Collector Efficiency	-	99%
Amount of Dust Collected	-	75 pounds/quarter
Actual hours Operation	-	8 hrs/day * 5 days/yr * 52 wks/yr = 2080 hrs/yr
Potential dust collected	=	75 lbs/quarter * 4 quarter/yr * ton/2000 lb * 8760 hrs/yr * yr/2080 hrs
	=	0.63 tons/yr
PM/PM10 Emissions	=	0.63 tons/yr /0.99
	=	0.638 tons/yr (uncontrolled)
	=	0.638 tons/yr * (1-.99)
	=	0.006 ton/yr (controlled)

(c) Polishing Emissions:

Using dust collected from all 42 dust collector - 3.6 tons/year  
42 stations controlled by each individual dust collector (PJC-01 thru PJC-42)  
Dust Collector Efficiency - 99%

$$\begin{aligned} \text{PM/PM}_{10} \text{ Emissions} &= \frac{3.6 \text{ tons/yr}}{0.99} \\ &= 3.64 \text{ tons/year (uncontrolled)} \\ &= 3.64 \text{ tons/yr (1-0.99)} \\ &= 0.0364 \text{ (controlled)} \end{aligned}$$

(d) Cutting, Wet (water coolant) Grinding, CNC Lathes, Milling and EDM Emissions:  
There is no PM/PM<sub>10</sub> emission coming from these operations.

**Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	4.37
PM-10	4.578
SO <sub>2</sub>	0.0
VOC	0.2
CO	3.3
NO <sub>x</sub>	3.9

**Justification for Approval Level**

The source is Exempted from permitting pursuant to 326 IAC 2-1.1-3, since the Particulate Matter (PM) and Particulate Matter Less Than Ten Microns (PM<sub>10</sub>) are emitted at less than five (5) tons per year. Nitrogen Oxides (NO<sub>x</sub>) and Volatile Organic Compounds (VOC) are also emitted below 10 tons per year.

**Limited Potential to Emit**

Existing re-permitted source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited).

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Polishing	0.0364	0.0364	0.0	0.0	0.0	0.0	0.0
Welding	0.006	0.006	0.0	0.0	0.0	0.0	0.0
Natural Gas Combustion	0.1	0.3	0.0	0.2	3.3	3.9	0.0
Total Emissions	0.1424	0.3424	0.0	0.2	3.3	3.9	0.0

This existing re-permitted source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Kosciusko County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) no single hazardous air pollutant (HAP) is emitted, and
- (c) no combination of HAPs is emitted.

The source is being re-permitted under this Exemption Approval.

### Federal Rule Applicability

- (e) New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60)
  - (1) There are no NSPS applicable to this existing source.
- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63).
  - (1) There are no NESHAPs applicable to this existing source.

### State Rule Applicability - Entire Source

- (a) 326 IAC 2-6 (Emission Reporting)

This existing source is not located in one of the listed counties in the rule that has a PTE of 10 tons of VOC or NO<sub>x</sub> per year. Additionally, the source does not have the PTE of 100 tons per year for any pollutant. Therefore, 326 IAC 2-6 does not apply.

- (f) 326 IAC 5-1 (Visible Emissions Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **State Rule Applicability - Individual Facilities**

- (a) 326 IAC 6-3-2 (Process Operations)
  - (a) The welding stations use less than six hundred twenty-five (625) pounds of rod or wire per day. Therefore, they are exempted from the requirements of this rule .
  - (b) The Polishing stations are exempted from the requirements of 326 IAC 6-3-2, since their particulate potential emission is less than five hundred fifty-one thousandths (0.551) pound per hour.
- (b) 326 IAC 6-2 (Particulate Emission Limitations for Indirect Heating Facilities)  
All the various natural gas-fired heaters are not subject to 326 IAC 6-2, as they are not sources of indirect heating.

#### **Conclusion**

The operation of this medical instrument fabrication source shall be subject to the conditions of the attached **Exemption 085-15794-00059**.

**Appendix A: Emissions Calculations**  
**Natural Gas Combustion Only**  
**MM BTU/HR <100**

Page 1 of 1 TSD App A

**Company Name:** Othy, Inc.  
**Address City IN Zip:** 486 West 350 North, Warsaw, IN 46580  
**Exemption:** 085-15794  
**Plt ID:** 085-00059  
**Reviewer:** Aida De Guzman  
**Date Application Received:** June 21, 2002

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

7 various heaters ID H-1 thru H-7;  
 11 various HVAC heaters ID HVAC#1 thru HVAC#11  
 1 heater ID48

8.9

77.5

Pollutant						
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.1	0.3	0.0	3.9	0.2	3.3

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.